

## Claims

What is claimed is:

- sub A1*
1. A protocol for automatic sequential addressing, comprising:  
a first protocol for enabling at least one I/O module to receive network communications; and  
a second protocol for providing the network communications to the at least one I/O module.
  2. The protocol of claim 1 wherein the first protocol enables at least one I/O module to enable at least one other I/O module to form an I/O group.
  3. The protocol of claim 1 wherein the first protocol is a serial protocol.
  4. The protocol of claim 3 wherein the first protocol includes a sync field, a size field, a command field, a data field, and a CRC field.
  5. The protocol of claim 3 wherein the first protocol transmits data in selected intervals *via* an interrupt service routine.
  6. The protocol of claim 5 wherein the selected intervals are groups of three to ensure data is sampled within a bit transition time.
  7. The protocol of claim 3 further comprising a Generic broadcast, an Autoaddress, and a Generic Master Mode.
  8. The protocol of claim 1 wherein the second protocol provides at least one of DeviceNet, EtherNet and ControlNet network communications.

9. The protocol of claim 1 wherein the second protocol further comprises class attributes, class services, and instance attributes.